

REMARKS/ARGUMENTS

Applicant thanks Examiner for conducting an interview on the present case on December 02, 2003. At the interview, all pending claim were discussed in view of the outstanding rejections under 35 U.S.C. § 112, and 35 U.S.C. § 102 over Olivera et al. The Examiner suggested amending the claims to more directly incorporate structural features.

In view of the above amendments and the following remarks, Applicant respectfully requests reconsideration of the pending claims. Claims 3, 6, 11, 13-14, 21, 26 and 27 have been canceled without prejudice or disclaimer. Claims 1, 5, 7-10, 12, 16-20, and 24 are now pending. Claims 1, 5, 7-10, 12, 16-20, and 24 have been amended.

No new matter has been inserted. Support for the amendment to claim 1 can be found in the specification at least in Table 1; Table 2; and p. 7, line 17. Support for the amendments to claims 5, 7, and 9 can be found in the specification at least in Table 1 and p. 7, line 17. Support for the amendments to claims 8, 10, and 12 can be found in the specification at least in Table 1; p. 8, line 23; p. 10, line 31. Claims 16-20 were amended simply for clarification. Support for the amendment to claim 24 can be found in the specification at least at p. 8, line 24.

35 U.S.C. § 112, first paragraph

Claims 1-3, 5-21, and 24-25 were rejected under 35 U.S.C. § 112, first paragraph, for written description. Applicant respectfully traverses this rejection.

Specifically, the Examiner has reiterated that “there is simply no structural requirement to be met by the claims.” While not conceding the correctness of the Examiner’s position, in the interest of advancing prosecution, Applicant has amended the claims to obviate the rejection. Specifically, claims 1, 5, 7-10, 12, 16-20, and 24 have all been amended to specifically include structural features. By way of example, claim 1 now requires a polypeptide sequence that is then mutated at specific residues. Applicant therefore asserts that all the pending claims now have structural requirements.

As stated previously, the written description requirement has been satisfied because the specification adequately describes sufficient structural features to clearly allow persons of ordinary skill in the art to recognize that the inventor has invented the claimed modified toxins.

See Union Oil Co. of Cal. v. Atlantic Richfield Co., 54 USPQ2d 1227, 1232 (Fed. Cir. 2000). By way of example, the present application states that the staphylococcal enterotoxins A, B, C1, C2, C3, D, E, G and H share a common structural feature of a disulfide bond not present in other enterotoxins (see p. 2, lines 24-26). The precise position of the disulfide bond in a number of enterotoxins is shown in Table 2 (see p. 3). The disulfide bond has been shown to be important in the toxicity of mutants of SEC1 (see p. 5, lines 6-9). Therefore, the claimed toxins share a structural feature in that they are all modified at the disulfide loop region to create a similar functional effect. Accordingly, the applicants respectfully submit that the written description requirement has been satisfied and withdrawal of this rejection is respectfully requested.

35 U.S.C. § 102(e)

Claims 1, 3, 5-14, 16-21, 24, and 26-27 were rejected under 35 U.S.C. § 102(e) as anticipated by Olivera et al. Applicant respectfully traverses this rejection.

Olivera discloses a method for separating, identifying and purifying small conotoxin-like rigidly conformed peptides containing multiple Cysteine residues. The conotoxins of Olivera are typically from 10-30 amino acids in length (see col. 4, lines 12-16).

In contrast, claim 1 requires a polypeptide sequence selected from the group consisting of SEQ ID NO: 1, SEQ ID NO: 2, SEQ ID NO: 3, SEQ ID NO: 4, SEQ ID NO: 5, SEQ ID NO: 6, SEQ ID NO: 7, and SEQ ID NO: 8; wherein the polypeptide sequence is mutated in the region from residue 93 to residue 110 to contain no more than 10 amino acid residues. Claim 19 requires an amino acid sequence of a Type C staphylococcal toxin having a disulfide loop region wherein at least 40% of the amino acid residues within the disulfide loop region are deleted. Finally, claim 24 requires a staphylococcal toxin, wherein the staphylococcal toxin comprises a disulfide loop region comprising SEQ ID NO: 66 (Cys-Cys-Gly-Lys-Thr-Cys). Because Olivera does not disclose these features of claims 1, 19, and 24, it does not anticipate the claims. As claims 3, 5-14, and 16-18 are dependent on claim 1, they are also not anticipated. As claim 20 is dependent on claim 19, it is also not anticipated.

Applicant therefore submits that pending claims 1, 5, 7-10, 12, 16-20, and 24 are not anticipated by Olivera. Applicant respectfully requests that this rejection be withdrawn.


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In light of the foregoing Amendment and Remarks, Applicant asserts the claims are in condition for allowance. Removal of all rejections and early notice of allowable claims is requested.

The Examiner is invited to telephone the undersigned attorney for clarification of any of these Remarks or Amendments, or to otherwise speed prosecution of this case.

Respectfully submitted,

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Date


Mark E. Deffner
Reg. No. P-55,103
Merchant & Gould P.C.
P. O. Box 2903
Minneapolis, MN 55402-0903
(612) 332-5300

MED:kf

